The Potomac Aquifer Recharge Oversight Committee Draft Meeting Minutes March 18, 2022

In attendance: Whitney Katchmark (Committee Chair), Mark Bennett (remote), Charles Bott, Ryan Bunce, Marcia Degan (remote), Dr. Colin Greene, Lance Gregory, Dan Holloway, Scott Kudlas, William Mann, Meredith Martinez (remote), Jamie Mitchell, Craig Nicol (remote), Doug Powell (remote), Leila Rice (remote), Mike Rolband, Gary Schafran, Tony Singh (remote), Mark Widdowson.

Whitney Katchmark, called the meeting to order at 11:00 am

There was a motion to approve the minutes of the previous meeting as distributed; it was seconded the motion; and the minutes were approved without objection.

Ms. Katchmark discussed the need for a new Committee Chair. Mike Rolband made a motion to approve Whitney Katchmark as the chair, William Mann seconded, and committee vote was unanimous. Ms. Katchmark is the new chair of the Committee.

The Committee discussed the frequency of meetings, it isn't required to have quarterly meetings moving forward. However, the Committee felt that quarterly was appropriate and would continue with this in the future. A schedule will be developed and sent out.

Jay Bernas, HRSD, provided an update on the funds to support the Potomac Aquifer Recharge Monitoring Lab in the state budget. A total of \$1M was appropriated in the House budget, but the state budget has yet to be finalized. HRSD has the money in their budget as a back up if state funds don't come through.

Mr. Ryder Bunce, VDH, provided an update on the monitoring plan proposed by VDH. Mr. Bunce's presentation outlined the process that would occur for adaptive management of non-regulatory commitments associated with the UIC permit, with input from a smaller group. The small group would include DEQ, HRSD, VDH, and Potomac Aquifer Recharge Monitoring Lab (PARML). The Committee was given the resolution and appendices to look over and provide comments to Mr. Bunce by April 8, 2022.

Mark Widdowson (PARML) provided an update on the regional and local effects of aquifer replenishment. Using flowmeter-measured flow rates by aquifer unit proved to be a novel approach to evaluate aquifer and well interactions. The results from the SWIFT research center well will inform the full-scale implementation at the James River SWIFT injection well.

Gary Schafran (PARML) provided an update on the replacement of the GAC substrate. Analyses of the GAC substrate were done to determine its efficiency at PFAS removal. Marginal removal was observed. He also presented information about a breakthrough of arsenic at screen 9 of monitoring well MW-SAT that could have been related to reduction/oxidation. Continued evaluation of what is causing the mobilization at certain depths in the well are being conducted. Levels of arsenic are still well below the MCL and there is no human health concern.

The Potomac Aquifer Recharge Oversight Committee Draft Meeting Minutes March 18, 2022

Jamie Mitchell (HRSD) reviewed the James River UIC permit status. It has undergone active review by EPA Region 3. HRSD staff will initiate work on the Nansemond UIC permit in 2022. Under the current timeline, the goal is to have the Nansemond UIC permit issued by December 2023.

Dan Holloway (HRSD) provided an overview of a new recharge well and followed up on the arsenic results. It is likely that the arsenic source is from the aquifer matrix and DEQ suggested a detailed geophysical study of the matrix and well. Maintaining the dissolved oxygen (DO) and a reductive nature the effluent is helpful to keep arsenic from dissolution.

Charles Bott (HRSD) gave an update on the GAC replacement, DO concerns, and the removal of 1,4 dioxane from effluent prior to arriving at the James River plant for treatment. Schematics were shared of the potential flow for the James River plant. In order to ensure SWIFT water DO does not get too low, an injection of pure oxygen using a Speece Cone may be a cost-effective solution to maintaining DO levels. Propane may also be added to enhance removal of residual 1,4 dioxane.

| The meeting adjourned at 1,20 n m | | |
|------------------------------------|-------|--|
| The meeting adjourned at 1:30 p.m. | | |
| Approved: | Date: | |
| | | |
| Committee Chair | | |

Committee Members:

- Mike Rolband, Director of Virginia DEQ
- Dr. Colin Greene, Virginia State Health Commissioner
- Dr. William Mann, Governor Appointee
- Doug Powell, Governor Appointee
- Whitney Katchmark, HRPDC
- Adil N. Godrej, Co-Director Occoquan Watershed Monitoring Laboratory
- Mark Widdowson, Co-Director of the Potomac Aquifer Recharge Monitoring Lab
- Gary Schafran, Co-Director of the Potomac Aquifer Recharge Monitoring Lab

Non-voting members:

- Mark Bennett, Director of Virginia and West Virginia Water Science Center
- Leslie Gillespie-Marthaler, Deputy Director Water Division, US EPA Region 3